

Technical Report

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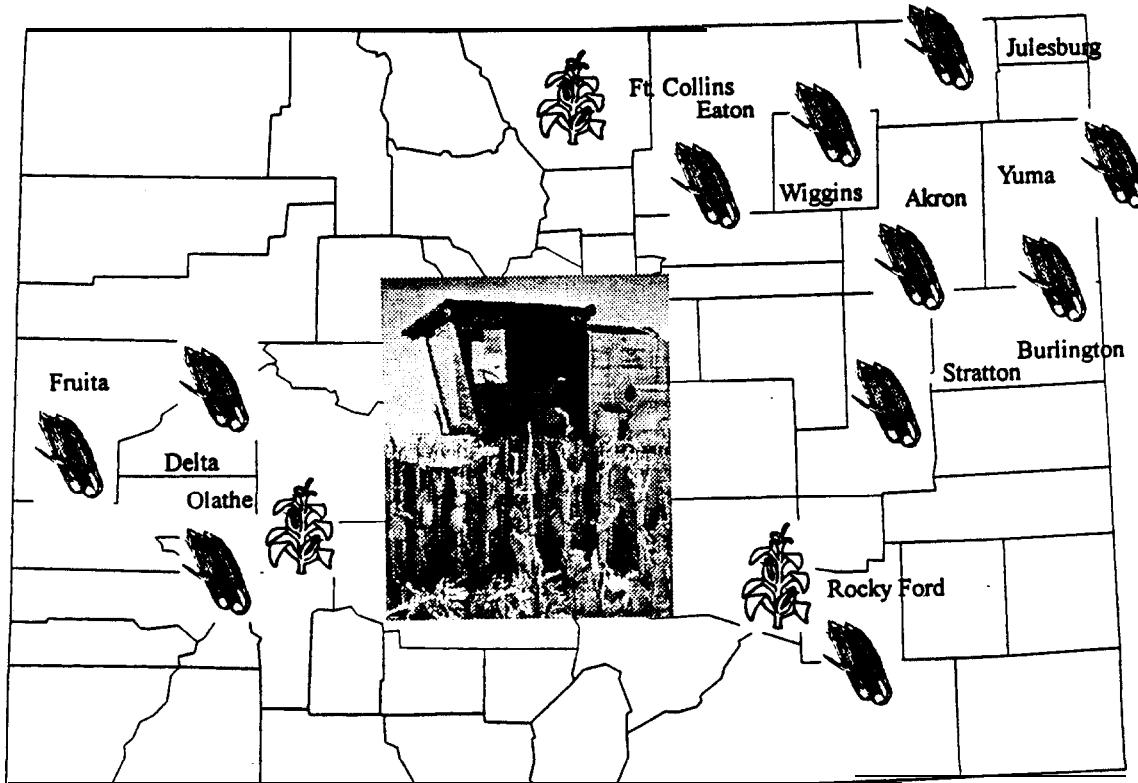
Department of
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Crop Sciences

Cooperative
Extension

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Colorado Corn Performance Trials, 1995

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COLORADO CORN HYBRID PERFORMANCE TRIALS, 1995

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Introduction

Extension and research personnel at Colorado State University annually evaluate commercial corn hybrids at multiple locations in Colorado to provide unbiased hybrid performance information to Colorado corn growers. The results of 12 hybrid corn grain performance trials and four silage trials conducted in 1995 by the Colorado State University Department of Soil and Crop Sciences and Colorado Agricultural Experiment Station are presented in this report. These results are also available on the internet at the following address: <http://www.colostate.edu/Depts/SoilCrop/extens.html>

All hybrids are entered by commercial companies. Experimental hybrids may be listed with a coded name and number. Corn production statistics for Colorado can be found in Table 1. Note: Reference to commercial companies or hybrids is made with the understanding that no discrimination is intended and no endorsement is implied by Colorado State University.

Entry Forms for 1996 Trials

Entry forms for 1996 trials may be obtained from the Department of Soil and Crop Sciences, Colorado State University, by contacting Jerry J. Johnson, Extension Specialist, C-4 Plant Science Building, Fort Collins, CO 80523; Telephone (970) 491-1454; FAX number (970) 491-0564; or e-mail jjj@lamar.colostate.edu. For western Colorado entry blanks, contact Harold Golus, Fruita Research Center, 1910 L Road, Fruita, CO 81521; Telephone (970) 858-3629.

Location of Trials

In 1995, trials were conducted at three dryland and eight irrigated sites in eastern Colorado and two irrigated sites on the western slope. Important climatic conditions and cultural practices for these sites are provided in Tables 23-25 after the trial results. Table 37, showing where each hybrid (by company name) was tested in 1995 is also shown after the trial results.

Trial Procedures

A randomized complete block field design with three replicates was used in all irrigated trials and four replicates were used in all dryland trials. Plots were planted and harvested by Colorado State University research personnel using CSU equipment. Plot area was approximately 400 ft², consisting of four 30 inch-spaced rows 40' in length. The center two rows (200 ft²) were harvested for grain yield. Target plant populations for all trials are listed in Tables 23 and 36, with planted populations being 15% above target population, except for dryland trials where target populations were attained by hand thinning.

Performance Trial Results

Grain yields are reported in bushels per acre adjusted to 15.5% moisture content. Additional variables reported are grain moisture at harvest, test weight, plant height, lodging and/or stalk breakage, and ear drop. Ears dropped per plot are counted at the time of harvest but fallen ears are not threshed nor included in the plot yields. Silk date is reported at Rocky Ford. For the silage trials, yields are reported in tons per acre adjusted to 70% moisture content. The moisture content of the silage at harvest is also reported,

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²The authors wish to express their gratitude to the Colorado farmers who generously contributed equipment, time, and land to conduct these trials for the benefit of all Colorado producers.

as an indicator of hybrid maturity at harvest. Analysis of variance and tests of significance were computed on yield. Two least significant difference (LSD) values, alpha=0.05 and alpha=0.30, are reported. LSD with alpha=0.05 is the traditional alpha value used for reporting trial results. However, Carmer (1976) found that producers' risk of economic loss would be minimized by using alpha values of 0.20 to 0.40 when selecting varieties based on crop performance trials. As shown in this report, more significant differences are found among varieties due to lower LSD values when alpha 0.30 is used in the place of alpha 0.50. Johnson et al.(1992) also found that the error structure that is relevant to researchers, i.e. alpha=0.05, 0.01 or 0.001, is largely irrelevant and misleading to growers. The coefficient of variation (CV) for yield is also reported. Multiple year results are generally more reliable predictors of hybrid performance under future circumstances.

Eastern Colorado Corn Grain and Silage Results

Weather Summary

Cool wet spring conditions led to later dates of seeding and lower than average annual growing degree days at all weather stations near the hybrid trials (Table 1). The average date of seeding of the performance trials was 6 days later in 1995 than in 1994. The early frost (and blanket of snow over much of eastern Colorado) on September 22nd ended the growing season earlier than normal for many corn producers. The short growing season resulted in dramatic decreases in average yield from 1994 to 1995 in almost all trials (dryland, irrigated, silage, and grain). The comparison of 1995 to 1994 average yields [(trial mean yield in 1995/trial mean yield in 1994) x 100] for hybrids tested in both years at each location were as follows: Akron dryland - 52.5%; Burlington irrigated - 70.8%; Eaton irrigated - 62.9%; Fort Collins silage - 68.6%; Julesburg dryland - 70.4%; Rocky Ford irrigated - 82.2%; Wiggins irrigated - 70.1%; and Yuma - 54.9% of 1994 yield. Higher yields in 1995 than in 1994 were only observed in the dryland grain trial at Stratton. The average yield of silage hybrids at Rocky Ford in 1994 and 1995 were about the same. Average test weights were lower in 1995 than in 1994 at all test locations and average grain moisture content was higher in 1995 than in 1994 at all locations except Yuma and Eaton.

References

- Carmer, S.G. 1976. Optimal significance levels for application of the least significant difference in crop performance trials. *Crop Sci.* 16:95-99.
 Johnson, J.J., J.R. Aldredge, S.E. Ullrich, and O. Dangi. 1992. Replacement of replications with additional locations for grain sorghum cultivar evaluation. *Crop Sci.* 32:43-46.

Heat Units or Growing Degree Days (GDD)

GDD calculations are accumulated from May 1 to September 30 based on daily temperatures. GDD is the average daily high and low temperature minus 50° F. For calculating the mean daily temperature, a minimum temperature below 50° F is counted as 50° F, and a maximum above 86° F is counted as 86° F. The optimum daytime temperature of 86° F is best for growth while the growth range limits extend from 41° F to 95° F. Most companies have maturity ratings for corn hybrids based on growing degree days.

Table 1. 1991-1995 and Average May to September Growing Degree Days.

Station	Years					Averages	
	1991	1992	1993	1994	1995	5-yr	Station
Akron	2722	2428	2271	2747	2199	2473	2517
Burlington	2801	2530	2471	2918	2443	2633	2728
Delta	2751	2574	2367	2830	2525	2609	2671
Fort Collins	2455	2322	2272	2688	2236	2395	2291
Fort Morgan	2840	2658	2622	2798	—	2730*	2632
Fruita	2748	2709	2630	2801	2361	2650	2891
Grand Junction	3059	3046	2938	3388	2882	3063	3090
Greeley	2732	2496	2420	2900	2366	2583	2525
Sterling	2879	2668	2591	3048	2549	2747	2553
Rocky Ford	2921	2861	2863	2994	2747	2877	2906
Wray	2879	2595	2605	2944	2305	2666	2771
Yuma	2648	2309	—	2992	2513	2616*	2680

Table 2. Dryland Corn Hybrid Performance at Akron in 1995.¹

Hybrid	Yield	Test Wt	Grain Moisture	Lodging	Ear Drop	Plant Ht
	bu/ac	lb/bu	%	%	%	in
Northrup King N4242	41.3	48.4	14.3	1.3	7.5	52.8
AgriPro HY9339	38.8	50.4	15.8	2.5	7.4	59.5
ICI 8692IT	34.9	49.1	15.8	1.8	6.6	60.5
Northrup King N4640*	32.8	49.2	13.2	0.3	10.8	59.8
Triumph 9932*	32.2	48.5	15.7	2.3	7.4	60.5
Northrup King N3030	31.8	50.5	13.5	2.8	16.4	54.3
Mycogen 5270	31.5	51.2	16.5	0.3	15.3	58.5
DEKALB DK566*	30.7	32.7	13.0	1.1	12.7	58.3
Mycogen 6220	29.2	47.0	20.0	1.0	5.1	60.0
LG Seeds LG2537*	27.6	50.9	17.9	1.3	4.8	61.3
Keltgen 2550	27.5	48.8	13.7	1.3	19.4	54.0
Keltgen 2520*	26.7	50.5	15.4	5.9	10.8	62.3
Stealth 1289	25.3	49.3	13.9	1.3	18.8	58.3
ICI 8751*	23.8	48.8	13.4	0.8	15.0	57.3
DEKALB DK493	21.2	46.5	12.1	3.8	21.1	51.0
Cargill 3797	19.4	47.4	15.9	0.0	23.5	59.0
Cargill 4177	15.8	48.9	15.3	2.0	10.9	57.0
Means	29.0	48.2	15.1	1.8	12.6	57.9
CV %	33.4					
LSD (.05)	14.5					
LSD (.30)	7.6					

¹Trial conducted on the Central Great Plains Research Ctr, seeded 5/17 and harvested 10/31.

*Average yields, grain moistures, and test weights from these hybrids computed from three of four replications due to a problem with the yield monitor.

Table 3. Average Dryland Corn Hybrid Performance at Akron, 1994-95.

Hybrid	Yield	Test Wt	Grain Moisture
	bu/ac	lb/bu	%
Northrup King N4242	52.7	50.7	12.1
ICI 8692IT	49.0	52.1	13.4
Keltgen 2520	48.4	51.8	13.1
Mycogen 5270	47.8	52.1	13.4
Northrup King N3030	47.4	52.3	12.0
Triumph 9932	46.6	50.3	13.6
Keltgen 2550	44.3	50.4	11.8
Means	48.0	51.4	12.8

Table 4. Irrigated Corn Hybrid Performance at Burlington in 1995.¹

Hybrid	Test		Grain		Ear Drop	Plant Ht
	Yield bu/ac	Wt lb/bu	Moisture %	Lodging %		
LG Seeds NB471	173.0	52.2	21.2	8.5	4.1	87.7
Payco 734	172.3	50.6	18.9	10.4	7.1	90.0
LG Seeds LG2511	171.7	53.6	16.6	17.4	10.4	79.0
Wilson 1581*	164.8	53.1	19.8	9.3	16.5	87.7
Kaystar KX-777	164.6	52.2	23.3	32.8	5.8	88.0
Northrup King N7070	163.7	50.7	23.1	4.9	3.2	89.0
Keltgen 2689	160.9	52.6	22.0	7.1	8.4	89.7
Ohlde 309	159.6	51.8	22.9	11.9	3.9	91.7
Mycogen 6220	159.3	52.7	23.0	12.7	8.6	89.7
Mycogen 6060	158.6	54.0	20.8	11.1	2.3	84.3
Ohlde 226	158.3	52.4	22.1	8.8	6.8	84.3
Triumph 9932	157.7	54.0	15.9	13.3	4.5	79.7
Ohlde 101	157.3	54.1	17.6	17.6	1.7	91.7
Payco 915	157.3	51.6	22.3	14.5	0.5	84.0
Fontanelle 5335	154.0	51.9	20.0	27.2	4.6	84.3
Cargill 6327*	153.8	52.8	20.4	7.6	10.4	86.3
Northrup King X6423	152.6	52.3	22.0	30.4	2.3	90.7
Payco 834	152.2	52.1	21.4	25.6	2.8	87.3
Payco 814	151.5	52.5	21.3	7.2	19.6	86.7
Ciba 4394	150.9	53.7	18.8	17.1	3.6	92.7
AgriPro HS 9484	150.6	52.4	21.3	9.3	7.7	86.0
Ohlde 315	150.4	52.0	21.0	42.9	3.2	88.7
Grand Valley X8986	146.2	54.6	21.8	24.8	3.8	87.0
AgriPro AP 9560	145.5	49.9	22.4	27.9	1.2	92.0
LG Seeds LG2537	145.2	54.6	18.9	20.0	1.0	85.0
Wilson E4150	143.7	54.6	18.8	28.9	7.6	85.0
DEKALB DK616	143.5	50.6	23.2	34.8	0.0	92.7
Kaystar KX-711	142.7	55.1	20.1	26.0	2.9	87.0
AgriPro AP 9507	142.2	52.5	23.2	55.3	4.2	86.0
Grand Valley SX1234	141.6	53.7	17.9	22.9	4.5	86.0
Cargill 5547	138.4	52.0	22.5	7.2	3.9	90.3
NC+ 4919	138.3	51.7	22.3	26.7	0.7	86.7
Ohlde 316	136.6	51.2	23.5	14.2	1.5	84.3
Ohlde 310	135.7	52.1	21.9	21.7	4.9	86.7
Keltgen 2616	130.6	53.0	20.1	92.1	4.4	85.7
DEKALB DK566	130.6	52.1	18.9	21.5	12.5	90.0
Keltgen 2550	129.7	51.2	15.3	31.3	11.9	83.0
Wilson E4079	129.1	51.9	22.2	85.5	0.8	89.0
Ohlde 340	123.1	49.9	27.9	29.9	0.0	86.0
DEKALB DK569	122.8	52.2	20.7	47.8	2.5	87.7
LG Seeds LG2560	121.8	49.1	27.8	40.2	7.1	85.7
Fontanelle 4944*	120.9	53.0	18.9	3.3	15.0	88.7
Ciba 4494	119.3	52.4	25.1	62.4	2.4	90.3
Ohlde 312	118.2	49.6	27.4	58.7	0.8	89.0
Mycogen 5440	114.0	52.0	18.8	43.5	23.9	88.3
NC+ 4044	113.4	51.3	21.7	56.1	1.5	89.0
Ohlde 331	112.7	50.3	26.6	36.1	5.0	90.7
Cargill 4177	110.6	52.4	18.6	2.0	17.3	86.0
Cargill 5677	108.5	52.6	21.2	19.0	21.2	93.0
LG Seeds NB6842	102.7	51.4	33.0	51.8	13.5	97.3

DEKALB DK560	97.2	53.1	20.6	56.1	2.7	85.3
Payco 902	94.9	51.3	31.7	38.9	15.4	95.3
DEKALB DK626	76.7	51.0	28.6	51.4	14.1	95.3
Means	138.9	52.2	21.9	28.0	6.5	88.0
CV, %	13.0					
LSD _(.05)	29.6					
LSD _(.30)	15.5					

¹Trial conducted on the Dennis Coryell farm; seeded 5/15 and harvested 10/28.

*Average yields, grain moistures, and test weights from these hybrids computed from two of three replications due to a problem with the yield monitor.

Table 5. Average Irrigated Corn Hybrid Performance at Burlington, 1994-95.

Hybrid	Test			Grain Moisture %
	Yield bu/ac	Wt lb/bu	Moisture %	
Wilson 1581	188.4	55.1	17.8	
Payco 814	181.3	54.8	18.0	
Keltgen 2689	177.0	54.7	18.8	
Ohlde 226	176.7	54.5	18.9	
Ohlde 315	173.7	54.2	18.4	
Mycogen 6220	172.2	54.6	19.5	
Ciba 4394	172.0	55.7	16.7	
Cargill 6327	171.9	55.0	17.8	
Payco 834	167.6	54.2	18.6	
Ohlde 310	164.9	54.2	18.5	
Keltgen 2550	160.9	53.1	14.6	
Ohlde 331	158.4	53.1	22.6	
Mycogen 5440	158.0	53.2	16.6	
Ohlde 312	152.6	52.3	21.8	
Ciba 4494	145.7	54.6	20.0	
Payco 902	145.5	54.0	24.3	
DEKALB DK560	142.1	55.0	18.2	
Means	165.2	54.2	18.9	

Table 6. Irrigated Corn Hybrid Performance at Eaton in 1995.¹

Hybrid	Yield	Test	Grain	Ear	
		Wt bu/ac	Moisture lb/bu	Lodging %	
Ciba 4214	153.3	50.6	12.0	8.8	5.9
DEKALB DK493	146.0	47.4	13.9	13.1	0.7
Northrup King N3030	144.1	52.0	13.6	1.6	0.4
Grand Valley SX1230	143.7	49.8	16.3	12.1	0.0
Cargill 3427	143.6	47.2	11.7	4.6	1.0
Keltgen 2460	143.6	48.1	11.5	7.2	1.7
Ciba 4273	142.2	50.6	16.2	4.9	0.0
Grand Valley SX1232	140.4	50.2	16.3	9.3	1.1
Keltgen 2420	140.3	50.8	13.2	20.1	1.7
AgriPro HY9339	139.0	48.7	16.8	11.4	0.0
LG Seeds LG2511	139.0	49.7	13.8	13.0	0.0
Northrup King N4640	138.4	48.6	13.4	12.5	0.0
Triumph 9932	137.6	50.5	16.4	28.2	0.0
Ciba 4285	137.0	49.9	12.9	2.3	0.0
Northrup King N4242	136.2	50.0	13.6	7.4	0.0
Mycogen 4760	135.0	51.1	13.8	34.2	3.9
Grand Valley SX1234	134.8	50.1	14.6	20.2	1.4
Cargill 3797	134.5	50.3	14.3	2.4	5.4
Grand Valley X5286	134.0	49.8	12.2	4.7	8.9
Grand Valley SX1256	133.9	48.8	14.1	6.3	0.0
DEKALB DK471	133.3	48.5	13.3	30.6	0.7
Keltgen 2550	130.9	46.4	12.2	12.3	0.0
Mycogen 5480	128.9	50.0	16.9	67.2	0.3
DEKALB DK527	126.6	48.8	14.5	35.9	0.0
Keltgen 2508	124.5	47.1	11.3	14.0	3.8
LG Seeds LG2537	123.7	50.0	17.3	47.9	0.7
Kaystar KX-711	121.6	49.5	18.0	19.8	0.4
Grand Valley X6286	120.1	50.2	11.9	19.3	1.4
Keltgen 2606	116.4	47.1	14.2	32.2	0.4
Cargill 4177	111.3	49.2	13.5	3.1	24.2
Kaystar KX-777	105.5	43.6	24.2	4.2	0.0
Means	133.5	49.2	14.4	16.5	2.1
CV %	7.2				
LSD _(.05)	9.8				
LSD _(.30)	5.1				

¹Trial conducted on the Ed Croissant farm; seeded 5/10 and harvested 11/15.

Table 7. Average Irrigated Corn Hybrid Performance at Eaton in 1994-95.

Hybrid	Yield	Test	Grain	
		Wt bu/ac	Moisture lb/bu	
DEKALB DK493	194.0	51.6	14.7	
Grand Valley SX1256	188.0	52.4	17.0	
Ciba 4273	182.1	53.3	16.5	
DEKALB DK527	180.8	52.0	15.7	
Northrup King N3030	180.6	54.3	14.9	
Triumph 9932	179.8	52.9	16.6	
Grand Valley SX1230	179.4	52.8	17.1	
DEKALB DK471	178.7	52.1	14.6	
Ciba 4214	178.7	53.7	13.7	
Keltgen 2460	177.3	51.4	13.0	
Cargill 3427	176.8	50.9	13.5	
Grand Valley SX1232	175.7	52.6	16.5	
Northrup King N4242	175.1	53.3	14.3	
Ciba 4285	175.0	53.0	14.7	
Keltgen 2550	172.0	50.7	14.3	
Keltgen 2508	168.8	51.0	13.2	
Means	219.3	52.4	15.0	

Table 8. Irrigated Corn Silage Hybrid Performance at Fort Collins in 1995¹.

Hybrid	Yield t/ac	Plant	
		Ht in	Moisture %
Grand Valley SX1256	20.4	86.0	63.6
Cargill 8327	20.2	92.0	75.2
Grand Valley SX1356	20.0	93.0	68.7
DEKALB DK656	19.6	92.0	73.5
Cargill SX269	19.5	88.0	68.6
CHECK	19.5	89.0	68.9
DEKALB DK626	19.1	100.0	71.9
Keltgen 2778	19.0	85.0	70.3
Stealth 1198	18.5	78.0	62.9
Cargill 5677	17.8	94.0	71.1
Casterline EXP9552	17.7	95.0	78.1
Keltgen KF1151	17.1	95.0	74.1
Grand Valley X8925	16.8	94.0	73.7
Northrup King N7992	16.7	91.0	72.7
Means	18.7	91.0	70.9
CV %		9.9	
LSD (.05)		3.1	

¹Trial conducted on the Agricultural Research Development and Education Center; seeded 5/5 and harvested 10/4.

Table 9. Average Irrigated Corn Silage Hybrid Performance at Fort Collins, 1994-95.

Hybrid	Yield t/ac	Moisture %
Cargill SX269	25.8	64.9
Cargill 8327	24.6	73.1
DEKALB DK656	23.8	70.5
Grand Valley SX1256	23.2	63.4
Keltgen KF1151	23.1	69.8
Grand Valley SX1356	22.5	68.3
Cargill 5677	22.4	66.7
Means	23.6	68.1

Table 10. Irrigated Corn Hybrid Performance at Julesburg in 1995.¹

Hybrid	Yield bu/ac	Test Wt lb/bu	Grain Moisture %	Lodging %	Ear Drop %	Plant Ht in
Grand Valley SX1230*	152.7	52.8	18.8	9.8	0.3	72.3
AgriPro HY9339*	151.2	51.6	18.8	5.8	0.0	71.7
Payco 633	146.5	51.1	18.8	6.3	0.4	75.3
Grand Valley SX1232	144.7	52.2	17.9	11.7	0.0	72.7
LG Seeds LG2511	141.3	50.6	17.1	11.8	0.7	72.3
Keltgen 2550	139.7	49.4	15.9	7.9	2.4	76.0
DEKALB DK527	135.2	50.9	17.7	12.4	0.0	79.3
Wilson 1371	135.0	47.8	18.9	13.1	0.7	80.7
Mycogen 6060	134.4	51.9	23.5	69.2	0.0	78.7
Mycogen 6220	133.5	51.1	20.6	14.4	0.0	79.3
Payco 734	133.3	48.1	19.5	11.3	0.3	85.3
Ciba 4372	132.8	51.5	19.2	12.8	1.7	85.0
LG Seeds LG2537	132.8	52.6	22.9	37.0	0.3	77.7
Wilson E4150	131.1	53.0	20.4	11.6	1.7	75.7
ICI 8565	130.0	50.0	19.6	38.4	1.0	85.0
DEKALB DK493	129.6	49.5	17.4	8.5	4.0	77.3
Keltgen 2689	129.2	50.6	19.5	13.9	0.3	81.3
Keltgen 2616	128.8	51.0	19.5	46.4	0.0	74.3
AgriPro HY9341	127.3	52.6	19.6	10.9	4.0	75.3
Grand Valley SX1256	126.7	51.7	19.0	18.6	2.0	81.7
Cargill 6327	126.3	51.0	21.3	19.7	1.1	77.0
Grand Valley SX1234	125.4	52.2	19.0	18.2	1.0	75.7
DEKALB DK566	125.0	50.3	20.2	15.6	0.7	80.7
Northrup King X6423	121.2	50.4	23.6	24.3	1.8	81.3
NC+ 3711	120.9	51.6	19.6	12.0	2.8	77.0
LG Seeds NB471	120.6	50.2	22.2	12.1	0.0	79.3
Ciba 4394	120.0	51.8	20.9	16.5	0.0	84.7
DEKALB DK560	119.5	51.8	21.9	21.9	0.7	80.3
Wilson E4079	115.5	49.2	21.7	40.8	0.0	80.7
Payco 814	114.9	51.1	21.9	15.3	0.3	77.7
DEKALB DK569	112.8	48.6	22.4	20.9	0.0	77.0
LG Seeds LG2560	112.5	47.0	23.6	28.7	1.4	76.3
Cargill 5547	111.7	50.9	22.5	8.1	5.7	78.7
NC+ 4044	109.2	48.7	22.8	27.9	0.0	82.0
Ciba 4375	107.1	52.9	25.7	38.5	0.7	81.0
Means	127.5	50.8	20.4	19.8	1.0	78.5
CV %		7.3				
LSD (.05)		15.4				
LSD (.30)		8.1				

¹Trial conducted on the Gene Bauerly farm; seeded 5/16 and harvested 11/9.

*Average yields, grain moistures, and test weights from these hybrids computed from two of three replications due to a problem with the yield monitor.

Table 11. Average Irrigated Corn Hybrid Performance at Julesburg, 1994-95.

Hybrid	Yield bu/ac	Test Wt lb/bu		Grain Moisture %
Keltgen 2689	167.6	53.1	19.5	
Grand Valley SX1230	166.4	55.1	17.7	
Wilson 1371	166.0	50.8	18.2	
Payco 734	161.2	51.1	18.7	
DEKALB DK569	159.9	51.8	20.1	
Ciba 4394	158.0	53.6	20.0	
Grand Valley SX1232	157.9	54.4	17.1	
Payco 633	157.3	53.4	17.7	
Cargill 5547	156.4	53.3	20.8	
Payco 814	154.5	53.2	20.7	
Keltgen 2550	154.4	51.9	15.6	
DEKALB DK527	152.6	53.4	16.6	
Grand Valley SX1256	147.4	54.7	18.5	
Grand Valley SX1234	146.7	55.0	17.1	
DEKALB DK560	145.3	54.0	20.2	
Means	156.8	53.3	18.6	

Table 12. Dryland Corn Hybrid Performance at Julesburg in 1995.¹

Hybrid	Yield bu/ac	Test Wt lb/bu	Grain Moisture		Ear Drop %	Plant Ht in
			%	Lodging		
Northrup King N3030	53.4	52.2	13.5	4.0	2.8	67.0
Northrup King N4242	52.1	49.9	12.6	8.1	0.8	62.8
Northrup King N4640	49.1	50.4	13.7	5.6	1.5	64.3
ICI 8692IT	40.1	52.6	15.5	6.3	0.5	59.8
ICI 8565	37.8	51.4	15.3	7.6	4.5	69.8
Mycogen 5270	35.1	50.8	14.2	5.6	6.1	58.8
DEKALB DK493	34.4	50.1	13.6	12.4	8.8	67.0
DEKALB DK566	34.4	51.0	15.6	10.3	9.8	69.0
Keltgen 2550	29.3	51.0	14.7	3.5	15.6	64.5
Mycogen 6220	29.2	51.1	22.5	23.9	10.2	67.5
Keltgen 2606	28.7	49.5	14.9	5.0	14.9	65.3
Cargill 4177	26.8	51.0	16.8	11.1	5.8	66.0
Cargill 3797*	16.2	51.0	14.9	7.3	17.0	69.0
Means	36.4	50.9	15.2	8.5	7.6	65.4
CV %	32.4					
LSD _(.05)	17.1					
LSD _(.10)	8.9					

¹Trial conducted on the Ollie Johnson farm; seeded 5/16 and harvested 10/30.

*Average yields, grain moistures, and test weights from these hybrids computed from three of four replications due to a problem with the yield monitor.

Table 13. Irrigated Corn Hybrid Performance at Rocky Ford in 1995.¹

Hybrid	Yield bu/ac	Test Wt lb/bu	Grain Moisture		Ear Drop %	Plant Ht in
			%	Lodging		
Grand Valley SX1550	226.2	51.6	21.1	5.4	0.0	100.7
Pioneer Hybrid 3162	213.5	50.9	21.1	2.7	0.0	94.3
Keltgen 2725	212.9	51.4	17.0	0.7	0.0	94.0
Mycogen 7250cb	208.1	51.1	18.3	4.4	0.0	95.7
Deltapine 4662	205.4	51.2	22.3	4.4	0.3	93.3
Stauffer S749	203.8	49.2	22.1	1.0	0.0	99.3
Triumph 1522	203.7	50.9	19.9	8.1	0.7	97.3
ICI 8326IT	201.6	50.8	21.3	6.4	0.3	100.3
Kaystar KX-909	200.1	49.6	20.1	2.0	0.0	94.7
Deltapine 4450	199.6	51.3	15.3	3.4	0.3	94.0
Mycogen 7460	198.9	51.6	17.4	7.4	0.3	95.3
Pioneer Hybrid 3225	197.9	52.0	19.7	1.7	0.3	90.0
Stauffer S705	196.4	49.9	17.1	2.4	1.0	92.0
DEKALB DK642	196.0	48.7	19.6	1.3	0.0	101.3
DEKALB DK580	195.4	51.3	15.0	4.4	0.3	90.7
DEKALB DK652	195.2	50.0	19.8	1.7	1.3	102.0
Pioneer Hybrid 3375	193.6	51.8	16.8	3.7	3.0	101.0
Northrup King	193.3	51.3	17.0	5.0	2.0	94.3
ICI 8285	192.9	50.2	20.6	5.4	0.3	98.7
Pioneer Hybrid 3223	192.0	50.2	19.6	20.7	1.0	103.3
Cargill 8327	185.2	50.3	21.5	4.0	0.0	94.7
Keltgen 2765	183.8	49.9	16.6	4.1	0.7	99.7
Deltapine 4581	183.5	51.3	21.3	7.1	1.0	99.7
Keltgen 2868	182.3	48.3	19.8	5.1	1.1	99.3
DEKALB DK626	165.3	49.4	16.4	2.4	11.1	100.7
Means	197.1	50.6	19.1	4.6	1.0	97.1
CV %	6.2					
LSD _(.05)	20.1					

¹Trial conducted on the Arkansas Valley Res Ctr; seeded 5/3 and harvested 11/7.

Table 14. Average Irrigated Corn Hybrid Performance at Rocky Ford, 1994-95.

Hybrid	Yield bu/ac	Test Wt lb/bu	Grain Moisture	
			%	
Deltapine 4662	237.2	20.1	54.4	
Pioneer Hybrid 3162	223.3	19.2	55.0	
ICI 8326IT	223.3	18.5	54.1	
Stauffer S749	222.9	19.9	53.1	
DEKALB DK652	222.1	17.9	53.1	
Stauffer S705	217.2	16.2	53.0	
Mycogen 7460	215.0	16.6	54.8	
ICI 8285	214.0	19.2	53.2	
Deltapine 4450	213.3	14.2	54.4	
Deltapine 4581	209.3	19.5	54.2	
Keltgen 2765	207.9	15.1	53.7	
Pioneer Hybrid 3225	207.5	17.5	56.1	
Keltgen 2868	206.2	18.8	52.2	
Cargill 8327	203.6	19.3	53.4	
DEKALB DK626	197.2	14.5	53.3	
Means	214.6	17.7	53.8	

Table 15. Irrigated Corn Silage Hybrid Performance at Rocky Ford in 1995.¹

Hybrid	Yield t/ac	Moisture %	Plant Ht in	Density plants/ac	Silking Date julian
Grand Valley X7925	40.0	66.5	107	34	213
Casterline EXP9552	38.0	69.4	107	33	213
Grand Valley SX1550	37.6	67.7	107	34	210
Cargill 9027	36.5	70.4	109	34	211
Pioneer Hybird 3223	35.8	69.8	105	33	212
LG Seeds LG2705	35.6	70.3	103	35	211
Pioneer Hybrid 3211	35.0	70.2	109	34	211
Cargill 8237	35.0	70.6	105	33	211
DEKALB DK642	34.8	67.1	105	34	208
ICI 8315	34.4	70.7	103	35	213
Keltgen 2868	34.3	71.7	105	34	212
LG Seeds NB814	34.0	73.0	103	34	212
ICI 8314	33.7	68.9	103	34	210
Pioneer Hybrid 3173	32.5	72.8	107	35	213
Northrup King N7992	32.2	68.9	104	34	211
Means	35.3	69.9	105	34	211
CV %	8.9				
LSD (.05)	5.3				

¹Trial conducted on the Arkansas Valley Research Center; seeded 5/3 and harvested 9/13.

²Julian date.

Table 17. Dryland Corn Hybrid Performance at Stratton in 1995.¹

Hybrid	Yield bu/ac	Test Weight lb/bu		Grain Moisture %		Ear Drop %	Plant Ht in
		%	lb/bu	%	lb/bu		
Northrup King N4242	49.7	51.8	17.8	5.2	0.5	56.0	
DEKALB DK493	45.2	51.0	18.5	2.1	1.0	57.0	
DEKALB DK566	40.3	48.1	24.4	6.1	0.5	59.5	
Northrup King N3030	40.3	54.3	17.4	15.4	1.8	54.5	
LG Seeds LG2537	39.9	52.8	21.9	1.0	0.8	60.0	
Northrup King N4640	39.0	51.0	18.1	2.5	0.5	49.3	
Keltgen 2550	37.6	51.8	17.6	7.1	2.3	53.5	
Keltgen 2616	35.2	49.9	21.5	4.5	0.0	56.8	
Mycogen 5270	33.6	52.1	18.7	5.5	3.0	55.0	
LG Seeds NB471	32.8	48.4	25.4	4.3	0.3	58.5	
Mycogen 6220	32.2	46.7	27.5	4.0	0.0	58.5	
Means	38.7	50.7	20.7	5.2	1.0	56.2	
CV %	17.5						
LSD (.05)	9.8						
LSD (.30)	5.1						

¹Trial conducted on the Steve Scott farm; seeded 6/13 and harvested 11/9.

Table 16. Average Irrigated Corn Silage Hybrid Performance at Rocky Ford, 1994-95.

Hybrid	Yield t/ac	Moisture %
ICI 8315	36.7	66.4
Cargill 9027	36.3	66.2
Cargill 8237	35.5	64.6
Keltgen 2868	34.7	65.1
Pioneer Hybrid 3173	32.8	66.7
Pioneer Hybrid 3211	32.5	58.7
Means	34.7	64.6

Table 18. Average Dryland Corn Hybrid Performance at Stratton, 1994-95.

Hybrid	Yield bu/ac	Test Weight lb/bu		Grain Moisture %
		bu/ac	lb/bu	
Northrup King N4242	45.4	54.5	15.0	
Mycogen 5270	37.8	55.3	16.2	
Northrup King N3030	33.2	55.7	15.3	
Means	38.8	55.2	15.5	

Table 19. Irrigated Corn-Hybrid Performance at Wiggins in 1995.¹

Hybrid	Yield	Test Wt	Grain Moisture	Lodging	Ear Drop	Plant Ht
	bu/ac	lb/bu	%	%	%	in
Payco 605	161.8	50.0	13.7	5.2	0.3	78.0
LG Seeds LG2511	159.6	49.6	16.9	1.0	0.0	79.7
Grand Valley SX1230	155.8	50.0	15.6	1.7	0.0	76.7
Payco 633*	154.9	48.5	17.9	2.5	0.0	70.3
ICI 8565	152.8	47.6	16.6	10.8	0.3	88.0
Triumph 9932	151.4	49.8	18.9	2.0	0.0	75.3
DEKALB DK527	151.3	47.6	18.1	8.3	0.0	75.0
Cargill 4177	149.8	48.8	16.9	1.8	0.0	78.0
AgriPro HY9339	148.0	48.1	19.7	4.0	0.0	76.0
Cargill 3797	147.1	47.8	15.6	2.2	1.5	77.3
Grand Valley SX1232	144.8	49.5	18.4	1.4	0.0	70.7
Keltgen 2550	144.6	48.6	13.1	2.8	0.4	68.7
Ciba 4372	143.1	47.9	20.6	2.4	0.0	83.3
Keltgen 2616*	140.7	48.4	17.6	10.5	0.0	70.7
Payco 734	140.4	44.4	20.2	2.5	0.0	81.0
Casterline EXP968	139.1	50.7	16.4	3.7	0.3	77.0
Ciba 4375	138.4	50.4	19.0	2.1	0.0	76.0
Payco 635*	137.9	47.8	16.9	4.7	0.0	77.0
Ciba 4394	135.9	48.4	18.4	1.7	0.0	81.3
Grand Valley SX1234	135.7	51.2	16.5	2.5	0.0	75.0
DEKALB DK566	134.1	45.8	23.5	4.2	0.0	83.3
Mycogen 5480	133.2	49.6	19.1	13.2	0.0	73.0
Cargill 6327	132.3	45.6	25.2	3.2	0.0	79.0
DEKALB DK569	132.0	45.7	23.6	1.0	0.0	78.7
Grand Valley SX1256	130.2	49.2	16.5	4.5	0.0	83.3
AgriPro HS9484	130.0	45.4	25.0	0.7	0.0	79.3
LG Seeds LG2537	129.3	47.0	20.1	7.0	0.0	78.0
DEKALB DK560	129.2	47.5	21.5	2.4	0.3	82.0
Northrup King N6223	127.6	46.2	23.6	3.5	0.0	81.7
Keltgen 2689	126.5	45.4	25.2	3.4	0.0	80.7
Casterline EXP9868	126.5	49.0	19.7	3.0	0.0	79.7
Northrup King N7070	124.6	42.0	26.3	1.4	0.0	84.7
Mycogen 6220	122.2	44.0	23.8	2.2	0.0	79.3
Cargill 5677*	114.5	43.3	21.7	2.4	0.0	86.3
Means	139.2	47.7	19.5	3.7	0.1	78.4
CV %	7.7					
LSD _(.05)	14.9					
LSD _(.30)	9.4					

¹Trial conducted on the Larry Rothe farm; seeded 4/22 and harvested 10/27.

*Average yields, grain moistures, and test weights from these hybrids computed from two of three replications due to a problem with the yield monitor.

Table 20. Average Irrigated Corn Hybrid Performance at Wiggins, 1994-95.

Hybrid	Yield	Test Wt	Grain Moisture
	bu/ac	lb/bu	%
Payco 633	179.0	51.8	17.6
Ciba 4394	174.5	51.9	18.1
Keltgen 2550	171.8	51.7	14.3
DEKALB DK527	171.7	51.5	17.1
Keltgen 2689	170.8	49.9	22.1
DEKALB DK569	170.5	49.7	20.4
Ciba 4372	169.6	51.7	18.5
Grand Valley SX1230	169.4	53.1	16.0
Grand Valley SX1232	168.4	52.8	16.9
Payco 734	167.2	49.0	18.2
DEKALB DK560	162.1	50.9	20.2
Grand Valley SX1256	160.6	53.1	17.6
Cargill 5677	150.3	49.1	19.9
Means	168.1	51.2	18.2

Table 21. Irrigated Corn Hybrid Performance at Yuma in 1995.¹

Hybrid	Yield bu/ac	Test Wt lb/bu	Grain Moisture %		Ear Drop %	Plant Ht in
			Lodging %	75.3		
Triumph 9932	153.2	53.7	12.8	8.4	1.7	75.3
Stealth 1108	148.1	53.2	11.9	14.4	7.3	69.7
Ohlde 316	147.5	52.4	14.4	13.6	5.9	75.3
Fontanelle 4193	146.8	54.6	13.3	16.3	0.7	77.3
DEKALB DK527	145.5	52.7	11.8	12.2	2.8	80.7
Kaystar KX-711	144.6	55.3	14.2	9.1	1.0	78.7
Keltgen 2677	144.4	53.2	12.8	8.1	11.5	71.0
AgriPro HS9484	140.9	53.2	13.6	9.8	12.0	74.7
DEKALB DK569	139.7	52.5	12.9	12.5	4.5	79.7
LG Seeds LG2537	138.7	54.6	14.5	8.2	2.1	76.3
Mycogen 6220	136.9	52.4	13.4	12.8	14.3	77.0
Grand Valley SX1274	136.4	51.2	11.3	5.5	9.1	79.3
Mycogen 6060	136.1	54.5	14.4	8.7	1.4	75.7
Payco 834	134.7	51.7	13.7	6.8	9.1	79.7
Ohlde 315	133.8	51.4	14.0	17.5	8.9	80.7
Keltgen 2689	132.5	52.7	13.4	7.4	6.6	78.0
Ohlde 340	132.2	50.1	14.2	3.6	0.0	78.3
DEKALB DK566	132.1	51.4	12.4	22.7	12.5	79.3
Stealth 1407	130.6	50.4	11.6	8.6	9.9	82.3
Ciba 4394	130.4	55.0	14.3	15.0	5.6	82.0
Keltgen 2616	129.7	54.0	13.1	15.9	1.5	73.7
Ohlde 331	129.0	51.7	13.7	7.2	4.8	83.3
Kaystar KX-777	128.8	51.6	14.6	12.0	9.2	78.0
Northrup King X6423	127.6	51.7	14.3	6.3	5.2	78.3
Ohlde 101	127.3	53.5	12.2	16.4	3.9	76.7
DEKALB DK560	126.9	52.1	13.0	20.2	2.8	75.7
Ohlde 226	126.5	53.1	13.3	13.2	19.8	78.7
Fontanelle 4865	125.9	50.5	12.0	13.1	9.3	84.0
Ohlde 309	125.2	51.6	13.7	6.8	10.2	82.7
Payco 734	124.4	50.1	12.0	12.1	7.9	80.7
Grand Valley SX1234	124.1	54.9	13.2	8.4	4.0	74.3
LG Seeds LG2583	123.4	51.8	14.1	15.3	8.5	80.3
Wilson 1432	122.1	53.2	12.6	8.8	9.9	83.7
Cargill 6327	121.6	53.7	14.4	12.3	15.9	76.3
Ohlde 312	121.3	50.3	14.4	18.4	4.5	81.0
LG Seeds NB471	120.9	52.7	14.2	15.5	15.2	79.0
AgriPro AP9560	120.0	51.2	14.8	16.5	10.6	77.7
Wilson E4079	117.9	51.5	13.6	21.3	2.3	74.7
Grand Valley X8986	117.2	55.6	14.9	10.1	2.5	80.7
Wilson 1581	115.2	53.8	14.1	11.9	20.6	78.7
AgriPro AP9507*	114.6	53.3	13.8	9.2	2.7	78.7
Ohlde 310	113.5	52.5	14.6	7.0	9.4	77.0
Cargill 7557	113.2	54.1	15.2	19.4	6.0	82.0
Payco 814	112.7	53.1	14.0	10.9	11.6	81.3
Keltgen 2550	112.4	52.2	12.0	32.3	6.3	71.7
LG Seeds LG2560	111.2	51.2	12.8	6.5	10.5	75.0
Ciba 4494	103.2	53.8	13.9	20.8	9.5	76.0
Means	128.7	52.7	13.5	12.5	7.5	78.1
CV %		12.1				
LSD _(.05)		25.4				
LSD _(.30)		13.3				

¹Trial conducted on the Byron Weathers farm; seeded 5/10 and harvested 11/14.

*Average yields, grain moistures, and test weights from these hybrids computed from two of three replications due to a problem with the yield monitor.

Table 22. Average Irrigated Corn Hybrid Performance at Yuma, 1994-95.

Hybrid	Yield bu/ac	Test Wt lb/bu	Grain Moisture %	
			%	15.6
Mycogen 6220	188.5	54.1	15.6	
DEKALB DK569	187.9	53.6	15.1	
DEKALB DK527	187.8	54.2	13.9	
Fontanelle 4193	187.4	56.0	15.3	
Keltgen 2689	186.8	53.9	16.1	
Payco 734	185.7	52.0	14.3	
Ciba 4394	184.7	56.1	15.8	
Payco 834	184.4	53.6	15.6	
DEKALB DK560	182.0	54.4	15.4	
Ciba 4494	180.6	55.1	16.0	
Wilson 1432	179.6	54.6	14.8	
Grand Valley SX1274	178.7	52.9	13.7	
Payco 814	177.4	54.3	16.1	
Cargill 7557	175.6	56.2	17.3	
Triumph 9932	175.1	55.4	14.5	
Wilson 1581	174.6	54.6	16.0	
Keltgen 2550	170.2	53.9	13.8	
Means	181.6	54.4	15.2	

Table 23: Trial Design, Calendar, and Cultural Conditions in 1995.

	Dryland Akron	Burlington	Eaton	Fort Collins	Dryland Julesburg	Julesburg	Rocky Ford	Dryland Stratton	Wiggins	Yuma	
	Grain	Grain	Grain	Silage	Grain	Grain	Silage	Grain	Grain	Grain	
Number of Entries	18	55	33	14	14	38	25	15	12	36	49
Target Population	15000	32000	32000	30000	15000	32000	32000	30000	15000	32000	32000
Date Planted	May 17	May 15	May 10	May 5	May 16	May 16	May 3	May 3	Jun 13	Apr 22	May 10
Date Harvested	Oct 31	Oct 28	Nov 15	Oct 4	Oct 30	Nov 9	Nov 7	Sep 13	Nov 9	Oct 27	Nov 14
Soil Type	Weld Silt Loam	Kieth Silt Loam	Weld Loam	Fort Collins Loam	Rago Silt Loam	Rago Kuma Silt Loam	Silty Clay Loam	Silty Clay Loam	Kieth Silt Loam	Rago Silt Loam	Manter Sandy Loam
Previous Crop	Wheat	Sudan Grass	Pickles	Beans	Wheat	Corn	Alfalfa	Alfalfa	Sunflowers	Corn	Pinto Beans
Fertilization (Lbs./A)											
Nitrogen N	60	190	180	100	60	170	175	175	70	250	230
Phosphorus P ₂ O ₅		50	40	80	12	40	50	50	35	40	35
Potassium K ₂ O			20						40	40	10
Zinc Zn					½		2				
Sulphur					2	6					½
											35
Herbicide	Marksman Atrazine Dicamba	Marksman Prowl	Frontier	Lasso Bladex	Atrazine Marksman Lasso Microtec	Bladex Atrazine	Dual Bladex	Dual Bladex	Marksman Prowl	Dual II	Bullit
Insecticide	None	None	Comite	None	None	Thimet	None	None	None	None	None
Type of Irrigation	Dryland	Center Pivot	Furrow	Furrow	Dryland	Center Pivot	Furrow	Furrow	Dryland	Center Pivot	Center Pivot

Table 24. Corn Grain Production in the Top Ten Colorado Counties for 1992 to 1994.

County	Acreage Planted			Grain Yield			Grain Production		
	1992	1993	1994	1992	1993	1994	1992	1993	1994
	-----000 acres-----				bu/ac			million bu	
Yuma	207	205	223	158	115	170	31.2	22.3	36.9
Weld	163	151	146	154	142	152	19.8	16.3	16.7
Kit Carson	93	92	105	159	113	159	13.8	9.4	15.4
Phillips	85	93	91	126	96	143	10.4	8.3	12.9
Morgan	80	89	90	164	129	149	12.3	10.3	12.4
Logan	63	60	71	130	109	124	7.7	5.9	7.8
Sedgwick	45	41	45	118	116	138	5.2	4.6	6.1
Washington	30	36	40	126	88	114	3.7	2.9	4.1
Larimer	25	24	22	153	133	143	2.4	1.9	2.0
Otero	19	16	21	154	140	161	2.6	2.0	3.1
State Total/Ave.	930	940	995	148	120	150	123.6	99.0	133.5

Table 25. Elevation and Climatic Conditions for Selected Colorado Locations.

Location	County	Elevation (feet)	1995			Average Over Years		
			Last Spring Frost	First Fall Frost	Frost Free Days	Last Spring Frost	First Fall Frost	Frost Free Days
Akron	Washington	4660	May 18	Sep 21	126	May 14	Oct 2	141
Burlington	Kit Carson	4170	May 18	Sep 21	126	May 4	Oct 4	153
Delta	Delta	4930	Apr 24	Sep 22	151	May 10	Sep 30	143
Fort Collins	Larimer	5000	May 4	Sep 20	139	May 20	Sep 20	123
Ft. Morgan	Morgan	4320	May 3	Sep 21	141	May 6	Oct 5	152
Fruita	Mesa	4510	May 13	Sep 22	132	May 10	Sep 30	143
Greeley	Weld	4650	Apr 27	Sep 21	147	May 11	Sep 30	142
Rocky Ford	Otero	4170	Apr 26	Sep 21	148	May 12	Oct 7	158
Sterling	Logan	3940	May 4	Sep 21	140	May 10	Sep 26	139
Yuma	Yuma	4140	May 13	Sep 20	130	May 5	Oct 2	150

Western Slope Results

The 1995 corn performance trials in Mesa and Delta Counties were conducted by Harold Gulus and Calvin Pearson of the Fruita Research Center. Plots were planted with a White Air Planter. Grain plots at Fruita were harvested with a modified Gleaner Baldwin combine. The Delta plots were harvested with a farmer-owned International Harvester 1460 combine. Silage trials were chopped with commercial field choppers and plot weights determined with weigh wagons. All plots were furrow irrigated.

Table 26. Irrigated Corn Hybrid Performance at Delta in 1995.¹

Hybrid	Yield	Grain		
		bu/ac	%	%
Northrup King N3030	157.8	14.8	4.9	34.1
Northrup King N4640	151.0	15.3	7.9	35.2
Northrup King N4242	142.9	15.6	7.7	35.3
Grand Valley SX1255	139.5	18.0	10.0	35.5
Grand Valley SX1230	137.6	19.1	1.7	33.5
Keltgen 2550	134.2	14.6	11.6	34.7
Grand Valley SX1234	133.7	16.0	7.5	35.5
Cargill 3797	133.5	17.6	4.7	35.0
DEKALB DK512	130.9	17.2	5.0	34.3
Keltgen 2616	126.2	18.1	29.8	35.2
Grand Valley SX1232	124.2	20.4	3.1	33.8
ICI Seeds 8612	123.6	15.4	4.2	34.2
DEKALB DK471	120.6	15.7	8.9	34.7
DEKALB DK493	118.7	16.5	4.3	34.4
Grand Valley X6286	114.6	14.6	9.2	33.8
Grand Valley SX1256	111.6	16.2	18.8	35.4
Keltgen 2460	111.6	14.2	8.6	35.8
Means	130.1	16.4	8.7	34.7
CV %	9.0			
LSD _{.05}	16.7			

¹Trial conducted on the Wayne Brew Farm; seeded 5/15 and harvested 11/1.

²Planting date delayed by wet weather; more lodging than usual.

Table 27. Average Irrigated Corn Hybrid Performance at Delta, 1994-95.

Hybrid	Yield	Grain	
		bu/ac	%
Grand Valley SX1255	161.8	17.0	
Grand Valley SX1230	155.8	17.0	
Northrup King N4242	154.0	15.1	
Grand Valley SX1232	152.6	17.8	
ICI SEEDS 8612	150.3	15.0	
Grand Valley SX1256	148.3	15.8	
DEKALB DK493	147.4	15.5	
DEKALB DK471	147.3	15.1	
Means	152.2	16.0	

Table 28. Irrigated Corn Silage Hybrid Performance at Olathe in 1995.¹

Hybrid	Yield	Moisture	Density
	t/ac	%	plants/ac
Keltgen KF1151	25.2	67.9	36.0
Grand Valley X7925	25.1	69.0	35.8
Grand Valley TX158	24.9	68.4	35.6
ICI Seeds 8314	24.4	68.9	36.1
Grand Valley SX1356	24.3	63.5	36.0
DEKALB DK676	24.2	69.0	35.1
Cargill SX269	24.1	64.2	34.9
DEKALB DK683	23.6	68.4	35.9
Cargill 8327	23.4	70.8	35.5
DEKALB DK743	23.4	70.5	35.6
Keltgen 2868	23.2	71.2	35.7
Northrup King N7992	23.1	66.7	35.8
Means	24.1	68.2	35.7
CV %	7.3		
LSD _(.05)	2.5		

¹Trial conducted on the David Seymour Farm; seeded 5/15 and harvested 10/4. Planting date delayed by wet weather.

Table 30. Irrigated Short Season Corn Hybrid Performance at Fruita in 1995.¹

Hybrid	Yield	Grain Moisture	Lodging ²	Density
	bu/ac	%	%	plants/ac
DEKALB DK512	187.7	14.1	5.6	33.8
DEKALB DK493	182.4	14.3	2.1	35.3
Grand Valley SX1274	179.9	15.3	0.9	35.1
Grand Valley SX1230	176.3	14.8	3.0	34.4
Grand Valley SX1255	174.2	16.9	0.9	35.4
Grand Valley SX1234	173.4	15.3	1.8	35.3
Grand Valley SX1256	171.8	15.5	9.5	35.1
DEKALB DK471	169.7	13.9	17.5	35.0
Grand Valley X8986	165.9	17.4	1.1	33.2
Northrup King N4640	155.9	13.1	3.3	35.1
Northrup King N4242	150.9	12.8	6.0	32.7
Cargill 4177	132.2	13.4	3.0	35.6
Means	168.4	14.7	4.5	34.7
CV %	9.7			
LSD _(.05)	23.5			

¹Trial conducted on the Fruita Research Center; seeded 5/22 and harvested 11/9.

²Planting date delayed by wet weather; some mite damage despite 'Insecticide' application; more lodging than usual.

Table 29. Average Irrigated Corn Silage Hybrid Performance at Olathe, 1994-95.

Hybrid	Yield	Moisture
	t/ac	%
Grand Valley TX158	29.5	68.7
Grand Valley SX1356	29.2	64.3
DEKALB DK743	27.7	70.3
DEKALB DK683	27.3	69.2
Means	28.4	68.1

Table 31. Average Irrigated Short Season Corn Hybrid Performance at Fruita, 1994-95.

Hybrid	Yield	Grain Moisture
	bu/ac	%
DEKALB DK512	166.4	13.4
DEKALB DK493	164.2	13.4
Grand Valley SX1274	158.0	14.0
Grand Valley SX1255	157.1	14.8
Grand Valley SX1256	155.9	14.7
Grand Valley SX1230	151.7	13.7
DEKALB DK471	150.9	13.2
Northrup King N4242	136.5	12.5
Means	155.1	13.7

Table 32. Irrigated Long Season Corn Hybrid Performance at Fruita in 1995.¹

Hybrid	Yield	Grain Moisture	Lodging ²	Density
	bu/ac	%	%	plants/ac
DEKALB DK580	185.3	15.2	2.6	34.9
DEKALB DK623	170.1	19.2	14.6	34.7
DEKALB DK626	167.0	17.1	8.8	34.1
Grand Valley SX1356	159.3	16.9	13.2	34.6
Northrup King N7590	159.2	17.7	10.9	33.9
Grand Valley X7926	159.0	19.9	4.7	33.6
Cargill 7697	147.9	18.8	17.5	34.6
Cargill 7777	140.5	18.1	22.3	33.0
Means	161.1	17.8	11.8	34.2
CV %	7.7			
LSD (.05)	18.3			

¹Trial conducted on the Fruita Research Center; seeded 5/16 and harvested 11/8.

²Planting date delayed by wet weather; some mite damage despite 'Insecticide' application, more lodging than usual.

Table 34. Irrigated Corn Silage Hybrid Performance at Fruita in 1995.¹

Hybrid	Yield	Moisture	Density
	t/ac	%	plants/ac
Grand Valley X7926	32.8	66.3	33.7
Grand Valley X7925	32.3	69.5	34.8
DEKALB DK743	32.0	72.2	33.6
Cargill 8327	30.9	72.0	35.1
Grand Valley TX161	29.3	70.4	33.4
DEKALB DK683	29.2	68.0	34.4
Grand Valley TX158	29.0	65.2	34.5
Northrup King N7992	28.3	69.3	34.5
DEKALB DK676	26.7	70.0	33.9
Wilson Demand 118	26.0	74.0	34.8
Means	29.7	69.7	34.3
CV %	4.4		
LSD (.05)	1.9		

¹Trial conducted on the Fruita Research Center; seeded 5/16 and harvested 9/15.

Planting date delayed by wet weather; some mite damage despite 'Insecticide' application.

Table 33. Average Irrigated Long Season Corn Hybrid Performance at Fruita, 1994-95.

Hybrid	Grain	
	Yield	Moisture
	bu/ac	%
DEKALB DK623	205.1	19.3
Grand Valley SX1356	192.2	17.7
Means	198.6	18.5

Table 35. Average Irrigated Corn Silage Hybrid Performance at Fruita, 1994-95.

Hybrid	Yield	
	t/ac	Moisture
	t/ac	%
DEKALB DK743	33.0	69.6
Grand Valley TX161	32.7	67.2
Grand Valley TX158	32.5	62.1
DEKALB DK683	31.6	66.0
Means	32.5	66.2

Table 36. Trial Design, Calendar, and Cultural Conditions in 1995.

	Delta	Olathe	Fruit Short Season	Fruit Long Season	Fruit
	Grain	Silage	Grain	Grain	Silage
Number of Entries	17	12	12	8	10
Row Spacing (inches)	30	30	30	30	30
Target Population	33500	33500	33500	33500	33500
Row Length Harvested	46	48	46	46	46
Rows Per Plot Planted	2	2	4	4	2
Rows Per Plot Harvested	2	2	2	2	2
Number of Replications	4	4	3*	4	4
Date Planted	May 15	May 15	May 22	May 16	May 16
Date Harvested	Nov 1	Oct 4	Nov 9	Nov 8	Sept 15
Soil Type	Mesa Clay Loam	Clay Loam	Ravola Clay Loam	Ravola Clay Loam	Ravola Clay Loam
Previous Crop	Beans	Corn Silage	Beans	Beans	Beans
Fertilization					
Nitrogen N	215	220	240	240	240
Phosphorus P ₂ O ₅	65	55	105	105	105
Herbicide	Lasso 2,4-D	Banvel + 2,4-D	Bladex	Bladex	Bladex
Insecticide	Comite	Comite + Dimethoate	Capture + Dimethoate	Capture + Dimethoate	Capture + Dimethoate
Irrigations Applied	8	7	10	10	8

Table 37. Index of Sponsors, Entries and Locations where Varieties were Tested in 1995.

The following abbreviations were used: Grain (G) and silage (S) and (X) indicates variety was planted at designated locations.

SEED COMPANY	BRAND/HYBRID	CROSS	CODE	Akron Dryland	Burlington	Eaton	Fort Collins	Julesburg Dryland	Rocky Ford	Stratton Dryland	Wiggins	Yuma	Delta	Olathe	Fruit	Fruit	FRUIT
AgriPro Seeds, Inc.	AgriPro AP9507	SX	2910	G	G	G	S	G	G	G	G	G	G	G	X	SHORT G	LONG G
RR 2, Hwy 30 East	AgriPro AP9560	SX	2908		X										X	X	
Ames, IA 50010 (800) 373-1741	AgriPro HS9484	SX	2907		X			X						X	X		
	AgriPro HY9339	SX	2909	X		X		X						X	X		
	AgriPro HY9341	SX	2911														
Cargill Hybrid Seeds PO Box 5645 Minneapolis, MN 55440 (612) 742-6743	Cargill 3427	SX	2348			X											
	Cargill 3797	SX	2896	X		X			X					X	X	X	
	Cargill 4177	SX	2897	X	X	X			X					X	X		X
	Cargill 5547	SX	2772		X			X						X	X		
	Cargill 5677	SX	2773		X			X						X	X	X	
	Cargill 6327	SX	2774		X			X						X	X	X	
	Cargill 7557	SX	2775														
	Cargill 7697		2430														
	Cargill 7777		3020														
	Cargill 8327	SX	2776				X			X	X						
	Cargill 9027	SX	2260				X			X	X						
	Cargill SX269	SX	2174				X			X				X			
Casterline & Sons Seeds, Inc PO Box 1377 Dodge City, KS 67801 (316) 225-4137	Casterline Exp 968		2936										X				
			2935				X			X			X				
			2937										X				

SEED COMPANY	BRAND/HYBRID	CROSS	CODE	Akron Dryland	Burlington	Eaton	Fort Collins	Julesburg	Julesburg Dryland	Rocky Ford	Rocky Ford	Stratton Dryland	Wiggins	Yuma	Delta	Olathe	Fruit		
				G	G	G	S	G	G	G	S	G	G	G	G	S	SHORT G	LONG G	s
Ciba Seeds	Ciba 4214	SX	2753			X													
211 Landmark Dr., Suite D-4	Ciba 4273	SX	2723			X													
Normal, IL 61761	Ciba 4285	SX	2754			X													
(309) 454-1223	Ciba 4372	SX	2510					X											
	Ciba 4375	SX	2862		X			X							X			X	
	Ciba 4394	SX	2724		X			X						X	X				
	Ciba 4494	SX	2725		X									X					
Dairyland Seed Co., Inc	Dairyland Stealth 1108	SX	2894												X				
PO Box 958	Dairyland Stealth 1198	SX	2625					X											
West Bend, WI 53095-0958	Dairyland Stealth 1289	SX	2779	X															
(414) 338-0163	Dairyland Stealth 1407	SX	2893												X				
DEKALB Genetics Corp.	DEKALB DK471	SX	2793			X			X								X		
3100 Sycamore RD	DEKALB DK493	SX	2692	X		X		X		X		X			X	X		X	
DeKalb, IL 60115	DEKALB DK512		2553													X			
(815) 758-9323	DEKALB DK527	SX	2794			X		X	X						X	X			
	DEKALB DK560	SX	2795		X			X		X					X	X			
	DEKALB DK566	SX	2912	X	X			X		X		X			X	X			
	DEKALB DK569	SX	2693		X			X		X					X	X			
	DEKALB DK580	SX	2694																
	DEKALB DK616	SX	2913		X														
	DEKALB DK623		2550																
	DEKALB DK626	SX	2790			X			X						X				
	DEKALB DK642	SX	2914						X						X	X			
	DEKALB DK652	SX	2749												X				
	DEKALB DK656	SX	1734																
	DEKALB DK676		3017																
	DEKALB DK683		2855																
	DEKALB DK743		2506																
Delta and Pine Land Co	Deltapine 4450	SX	2786																
PO Box 157	Deltapine 4581	SX	2597																
Scott, MS 38772	Deltapine 4662	SX	2715																
(601) 742-3351																			
Fontanelle Hybrids	Fontanelle 4193	SX	2636														X		
Rt 1, Box 18	Fontanelle 4865	SX	2861													X			
Nickerson, NE 68044	Fontanelle 4944	SX	2860			X													
(402) 721-1410	Fontanelle 5335	SX	2859			X													
Grand Valley Hybrids Inc	Grand Valley SX1230	SX	2478					X		X							X		
840 23 Road	Grand Valley SX1232	SX	2620					X		X		X				X	X		
Grand Jct., CO 81505	Grand Valley SX1234	SX	2839			X		X		X					X	X	X		
(970) 243-3115	Grand Valley SX1255		2696													X	X	X	
	Grand Valley SX1256	SX	2697					X		X		X				X	X	X	
	Grand Valley SX1274	SX	2624							X						X		X	
	Grand Valley SX1356	3X	2840							X								X	
	Grand Valley TX158		1602																
	Grand Valley TX161		2622																
	Grand Valley X5286	SX	2920					X											
	Grand Valley X6286	SX	2915					X								X			
	Grand Valley X7925	SX	2918													X	X		

SEED COMPANY	BRAND/HYBRID	CROSS	CODE	Akron Dryland	Burlington	Eaton	Fort Collins	Julesburg Dryland	Rocky Ford	Rocky Ford Dryland	Stratten Dryland	Wiggins	Yuma	Delta	Olathe	Fruita	FRUIT Fruit	
				G	G	G	s	G	G	s	G	G	G	G	s	short G	long G	s
	Grand Valley SX1550	SX	2919						X	X							X	X
	Grand Valley X8925	SX	2917			X												
	Grand Valley X8986	SX	2916		X													
ICI Seeds 2938 Kyle Circle Loveland, CO 80537-7843 (970) 962-9632	ICI Seeds 8285 ICI Seeds 8314 ICI Seeds 8315 ICI Seeds 8326IT ICI Seeds 8565 ICI Seeds 8612 ICI Seeds 8692IT ICI Seeds 8751	SX	2641 2949 1695 2847 2950 2843 2640 2844						X	X						X		
Interstate Payco Seed Co PO Box 338 West Fargo, ND 58078 (701) 282-7338	Payco 605 Payco 633 Payco 635 Payco 734 Payco 814 Payco 834 Payco 902 Payco 915	SX	2904 2729 2905 2811 2731 2813 2614 2906						X	X			X	X		X	X	
Kaystar Seed PO Box 947 Huron, SD 57350 (605) 352-8791	Kaystar KX-711 Kaystar KX-777 Kaystar KX-909	2X	2885 2884 2801		X	X						X				X		
Keltgen Seed Company PO Box 209 Olivia, MN 56277 (612) 523-1331	Keltgen 2420 Keltgen 2460 Keltgen 2508 Keltgen 2520 Keltgen 2550 Keltgen 2606 Keltgen 2616 Keltgen 2677 Keltgen 2689 Keltgen 2725 Keltgen 2765 Keltgen 2778 Keltgen 2868 Keltgen KF1151		2898 2200 2825 2577 2288 2850 2899 2900 2677 2901 2826 2680 2576 1893			X					X						X	
LG Seeds PO Box 88 Tekamah, NE 68061 (402) 374-1445	LG Seeds LG2511 LG Seeds LG2537 LG Seeds LG2560 LG Seeds LG2583 LG Seeds LG2705 LG Seeds NB471 LG Seeds NB814 LG Seeds NB6842	SX	2865 2866 2868 2869 2871 2867 2872 2870		X	X		X		X		X	X		X			
Mycogen Plant Sciences 720 St. Croix Street Prescott, WI 54021 (800) 321-2867	Mycogen 4760 Mycogen 5270 Mycogen 5440 Mycogen 5480	SX	2886 2586 2830 2599			X				X		X			X			

SEED COMPANY	BRAND/HYBRID	CROSS	CODE	Akron Dryland	Burlington	Eaton	Fort Collins	Julesburg Dryland	Rocky Ford	Rocky Ford	Stratton Dryland	Wiggins	Yuma	Delta	Olathe	Fruita	Fruita			
				G	G	G	S	G	G	S	G	G	G	G	G	Short G	Long G	Short G	Long G	S
	Mycogen 6060	SX	2887		X			X					X							
	Mycogen 6220	SX	2660	X	X			X	X				X							
	Mycogen 7250cb	SX	2888										X							
	Mycogen 7460	SX	2831										X							
NC+ Hybrids PO Box 4408 Lincoln, NE 68504 (402) 467-2517	NC+3711	SX	2946			X														
Northrup King Co 7100 N Financial Dr Suite 103 Fresno, CA 93720 (800) 521-7012	Northrup King N3030	SX	2769	X		X							X							
	Northrup King N4242	SX	2525	X		X							X							
	Northrup King N4640	SX	2879	X		X							X							
	Northrup King N6223		2882																	
	Northrup King N7070		2881			X														
	Northrup King N7590		2883										X							
	Northrup King N7992		2771					X						X						
	Northrup King X6423		2880			X		X												
Ohlde Seed Farm, Inc. RR 1, Box 63 Palmer, KS 66962 (913) 692-4555	Ohlde 101		2875			X														
	Ohlde 226	S	2761			X														
	Ohlde 309		2874			X														
	Ohlde 310	S	2762			X														
	Ohlde 312	S	2767			X														
	Ohlde 315	SX	2836			X														
	Ohlde 316		2873			X														
	Ohlde 331	S	2766			X														
	Ohlde 340		2878			X														
Pioneer Hi-Bred Int'l Inc 1616 S Kentucky St. Suite C-150 Amarillo, TX 79102 (806) 356-0160	Hybrid 3162	SX	2241										X							
	Hybrid 3173	SX	2682																	
	Hybrid 3211	SX	2711																	
	Hybrid 3223	SX	2863																	
	Hybrid 3225	SX	2768										X							
	Hybrid 3375	SX	2864										X							
Stauffer Seeds, Inc PO Box 68 Aurora, NE 68818 (402) 694-4062	Stauffer S705	SX	2851										X							
	Stauffer S749	SX	2852										X							
Triumph Seed Co, Inc PO Box 1050 Rails, TX 79357 (806) 253-2584	Triumph 1522		2858										X							
	Triumph 9932	SX	2675	X		X	X													
Wilson Seeds, Inc PO Box 391 Hartland, LA 51537 (712) 755-3841	Wilson 1371	SX	2788										X							
	Wilson 1432	SX	2585																	
	Wilson 1581	SX	2789			X							X							
	Wilson E4079	SX	2877			X							X							
	Wilson E4150	SX	2876			X							X							
	Wilson Demand 118		3018																	